ENGINEERING AND
BOILER HOUSE REVIEW

INDEX TO
VOLUME 79

January-December 1964

Published by

ENGINEERING REVIEW PUBLISHING CO. LTD.

BRAYWICK HOUSE - MAIDENHEAD - BERKS.

Page

A

A million bottles a day 419
Automatic stokers for industrial boilers 289

B

Babcock boiler for Drakelow C 406
Babcock re-equip for bigger business 374
BCURA builds up industrial boiler research 219
Boiler plant insurance 252
Boiler soot and deposit remover 177

C

Citric acid for pre-commission cleaning of power station boilers 330
Citric acid for regular maintenance cleaning 366
Citric acid—the High Marnham maintenance clean .. 411
Computer takes over at West Thurrock 450
Critical path analysis 286, 416

D

Danube power station has British pipework 251
Design features of the Maxecon economic boiler 82
Developments in bagasse-fired boilers 124
Developments with the Ignafluid system of combustion .. 14
District heating scheme for Victoria site 174

E

Economiser failure averted by ultrasonics 452
EDITORIAL NOTES:—
Coal builds its competitive strength 39
Desalination will be big business 445
Electricity sets the pace for industrial growth 245
Energy policy is needed now 205
Great oaks from little acorns 325
Modernisation makes for cleaner air 121
Natural gas—the great unknown 161
Needed—Maximum efficiency at low load 361
The next step—slightly supercritical 405
UKAEA awaits the big decision 283
Where are tomorrow's engineers ? 1
We can still save 20 per cent on fuel bills 79
Efficient production of process steam and electricity .. 46
Eight-foot rapid-action valves for Tilbury "B" cooling system 178
Electricity industry looks at 1968—and beyond 414
Enterprise Scotland Exhibition 338
Evolution of Paxman water tube boilers 134

F

First recovery boiler to be installed in UK 91
Fluid couplings for main feed pump drives at Blyth "B" .. 42

G

German power station reports success with sequential control of start up 332

H

House-Pack raises steam within a few hours of delivery .. 300
How to choose boiler refractories 208
Hunterston nuclear power station opened 364

I

India plans major expansion in nuclear power programme 248
Industrial and commercial equipment at HEVAC .. 141
INDUSTRIAL NOTES:—
107, 138, 183, 226, 261, 301, 342, 379, 423, 462
Instant evaluation of operating data 172
International Instruments Electronics and Automation Exhibition 265
Instant evaluation of operating data 172
Is the gauge glass going out ? 260, 378

K

Kimberley-Clark paper production doubled 255

N

NEW POWER PLANT PATENTS:—
27, 66, 102, 149, 189, 233, 271, 312, 350, 390, 434
New range of Paxman water tube boilers 169
Nickel alloys in nuclear power stations 56
Noise suppression in oil burners 168

Page

P

Packaged boilers cut running cost by one-third in textile group 95
Passout turbine plant pays off at paper mill 446
PERSONAL AND INDUSTRIAL:—
36, 74, 116, 158, 202, 242, 280, 322, 358, 400, 442
PICTURE NEWS:— 60, 97, 180
Pipework service—from design to installation 127
Planning a boiler shutdown by critical path analysis .. 416
POINTS AND POINTERS:—
2, 40, 80, 122, 162, 206, 246, 284, 326
Power plant engineering in 1963 51
Power station ash aids industrial development and public recreation and safety 137
Power station coal transport agreement 58
Progress in stainless and heat resisting steels 460

R

Raising the efficiency of a large steam plant 421
Recent books and films 96, 340
RECENT PLANT AND AUXILIARIES:—
Accurate desuperheat control 428
Air-heating system 270
Anti-corrosion baffle for pressure-jet boilers 22
Anti-seize protection compound 468
Air and gas regulator 386
Audco protective coatings 269
Audio gauge monitors fuel level 470
Automatic continuous weighing 349
Automatic data recording 267
Automatic filter-drain valve unit 146
Automatic intermittent blowdown 310
Automatic optical pyrometer 309
Automatic oil burner 429
Axial bellows expansion joints 100
Bastian & Allen electrode boilers heat new Ferranti Research laboratories 64
Bending machine 188
Bifurcated axial flow fan 98
Boiler house for fifty-two factories 23
British Oxygen Tubesealer 270
Cable glands 268
Caird & Rayner sampling coolers 384
Cambridge Dew-point controller 21
Chemical doser 230
Clamping tools 431
Coast Braze torch 306
Cold air curtain 65
Continuous air filter 267
Control for pulverising mills 468
Control system for steam-raising plant 148
Corrosion protective lubricant 346
Corrosion resistant titanium 428
Degreasing and cleaning solvent 267
Determination of surface flatness 429
Diaphragm valve 270
Differential level indicator 429
Direct-driven plastic fans 388
Direct Measurement of D.C. voltage 348
Double barrier level gauge 309
Dual-snap pressure switches 187
Durocast insulating concrete 386
Elapsed time recorder 101
Elco gas burner 430
Elco oil burners 64
Electronic liquid level transmitter 20
Electronic thermometers 346
Electrical timing devices 186
Electronic torquemeter 384
Elimination of cracking and spalling 347
End closures 431
Endoscopes 269
Flambivore boiler 98
Flameproof enclosures 230
Flameproof photo-electric switch units 308
Flame-sprayed tungsten carbide coating 385
Fibre glass all-purpose insulation material 388
Flexible heating element 347
Forged steel gate valves 309
Frequency stabilised pH meter 386
Friction welding 187
Fuel-oil additive 23
Gas-fired air heaters 469
Gas protected mantle 347
Gas trace analyser 267

Page

General purpose pump 468
Heating and air-conditioning controls 146
Heating and air-conditioning in new B.P. head office .. 24
Heating exchangers 309
Heat pump for air-conditioning 309
Heat resisting marking fluid 307
Heavy duty floor tile 470
Heavy duty screw elevator 430
Heavy oil burner units 429
High pressure cleaning plant 147
High pressure cleaning pump 384
High pressure couplings 186
High pressure flow indicator 306
High sensitivity pressure switch 106
High speed-oil-firing pumps 385
High temperature refractory cement 388
Hot water controls 230
Hours-run indicator 469
Immersion heater steam boiler 306
Impact wrench 101
Impellers for pulverised fuel burners 147
Improved pipe bender 347
Increased range of air blowers 470
Industrial degreaser 232
Industrial X-ray unit 310
In-line piston pumps and motors 469
Instant detection of 17 gases 430
Instant smoke 384
Instrument case standardisation 99
Insulation spheres 63
Internal gear pumps 431
Large capacity oil separators 428
Leak detector 100
Liquid level controls 231
Liquid ring vacuum pumps 269
London Airport heating 65
Low profile Stacatruc 430
Low temperature welding rods 20
Machine installation simplified 385
Maximum demand limit indicator 309
Measurement of large gas flows 267
Mechanical seal for slurries and acids 388
Mercury column for steam turbine testing 99
Metal-cutting tool 65
Metering valve 348
Micanox EKV pitch sealer 429
Micro scanner 145
Miniature hydraulic system 470
Miniature packaged burner 185
New automated analytical systems 148
New electronic ignition system for multiple gas burners 62
New liquid density meter 386
New lubricant and release agent 101
New lubricant gun 20
New range of axial and mixed slow pumps 308
New range of electric motors 346
New refractory insulating brick 148
New speed-reducing gear 188
New two-stage temperature controller 21
New type of open steel flooring 20
Non-return valve 21
Nylon tubing 186
Oventrop refuelling valve 232
Packaged burner units 469
Packaged gear shield grease 385
Packaged tank connection kit 469
Panel-mounting gauges 431
Parallel slide valves 349
Pinch valves 269
Pipe thread sealing tape 270
Pipework insulation problems 22
Piston-operated limit switch 307
Plant control system 185
Plastic pipeline fittings 386
Portable unit for water purification 98
Pneumatically operated flow transmitter 65
Precision instruments 229
Preset timers 148
Ptfe expansion bellows 186
Ptfe filter elements 310
Pressure gauges 270
Programme controller 349
Pumps for corrosives 347

Page

Pyrometer for service at 1,600 C 470
Quick release cover ducting 346
Radiation monitor 347
Range of hole cutters extended 428
Range of radiator valves 429
Recessed-head screws 101
Recorder with 3-speed chart 469
Recording gas calorimeter 147
Recovery of filtered material 428
Reducing valve 145
Refractory baffle 470
Refractory with low iron content 346
Relief valve for liquids 229
Removing heavy rust deposits 348
Rotary gear pumps 348
Rough usage marking paint 101
Scale and corrosion prevention 384
Sealer coating 188
Self calibrating pyrometer 470
Self-locking units 63
Self sealing couplings 232
Sensitive transistorised relay 229
Short stem boiler thermostat 308
Signal lamp display panels 308
Signalling switch unit with safety circuit 231
Simplified economic air-heater 22
Single-ported valve body 307
Slotted angle systems 188
Slow-speed high-torque induction motor 146
Sludge thickener and clarifier 308
Small boiler for auxiliary steam supplies or processing .. 145
Standard motors up to 1,000 h.p. 22
Static pressure regulator 146
Stellar pressure filters 231
Storage tank instrument 307
Sub miniature photo-conductor for industrial use .. 307
Surface thermometer 431
Switches detect ferrous material 468
Swivel and rotary joints 185
Synchronous hour counters 232
Tank contents gauge 20
Tank level computer calculated 469
Tank level floor switch 62
Tank thermometer without stem 470
Telethermometer with inter-changeable probes 145
Temperature and pressure control valves 22
Temperature controllers 348
Thermobloc heater with swivelling distribution heads .. 62
Thickness meter 268
Three phase meters 388
Titeseal valve with locking device 386
" TRITON " flexible refractory 430
Two-stage centrifugal feed pumps 230
Ultrasonic cleaning systems 347
Ultra-sensitive leak detector 431
Ultra-violet hand lamp 100
Under-nut fitting for load indicator 187
Vacuum gauges 307
Valve actuators 99
Valve flow calculator 65
Valve positioner 186
Variable programming control unit 268
Voltage stabiliser 64
Water for determining ash content of coal 63
Waterproof pipe heater 469
Wet/dry 3-phase vacuum cleaner 470
Zero gas governors 307
2 and 5 hp condensing units 429
2-hour metal filler 428
5 KV Insulator tester 346
Reducing exhaust steam wetness in Magnox reactor systems 86
Research development production exhibition 224

S

Sandvik Swedish Steels 4
Slipforming builds chimney four times faster 253
Standard actuator motorises any valve 299
STC adopt high-pressure hot water in five new factories .. 455
STEAM ENGINEERING OVERSEAS:— .. 25, 59, 112, 140, 181
Steel standards will cut boiler weight and cost 328
Stresses in pressure vessels and pipework 176

Page

T

The case for variable-speed A.C. motors for boiler fan drives 213
Thornycroft expand into power industry 93
Three boilers replace eleven in cotton mill modernisation plan 164
TRADE LITERATURE:—
34, 78, 120, 160, 204, 244, 282, 324, 360, 404, 444

U

Ultrasonic test for corroded boiler tubes 254
UPC seek wider scope for research and development .. 258

V

Vacuum cleaning reduces manpower costs 257
Variable-ratio epicyclic gear for boiler feed pump drive .. 18

W

What happened at Battersea 222
World Power Conference 369

PAGE NUMBERS IN EACH ISSUE FOR VOL. 79

January	1 to 38
February	39 „ 78
March	79 „ 120
April	121 „ 160
May	161 „ 204
June	205 „ 244
July	245 „ 282
August	283 „ 324
September	325 „ 360
October	361 „ 404
November	405 „ 444
December	445 „ 484

Copies of Back Numbers (if available) supplied at 3s. 0d. each, including postage.

Electrical Press Limited, Maidenhead, Berks.